

What is claimed is:

1. A system for providing virtual alternative display regions in video presentations, comprising:

5           an apparatus providing a video presentation on a network;  
          a video integration apparatus coupled to the network for receiving and processing the video presentation;  
          at least one data set identifying a sequence of video frames in the video presentation, an individual region appearing in each of the frames in the sequence of frames, and a pixel signature comprising an average of red, green, and blue (R,G,B) values over all of the pixels in the individual region, the pixel signature also comprising a specific deviation from the RGB average values; and

10           at least one alternative video region conforming in areal extent to the individual region in the video presentation, the alternative video region comprising alternative pixel values for the pixels in the individual region;

15           characterized in that the integration apparatus, as each frame of the video presentation is received and processed, tests the pixel values for the individual region in the frame, and for pixel values tested that deviate from the RGB average values beyond the specific deviation, displays the pixel values provided by the video presentation, and for pixel values tested that fall within the specific deviation from the average values, displays the alternative pixels from the stored alternative video region.

20           2. The system of claim 1 wherein the alternative video region comprises an advertisement.

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3. The system of claim 1 wherein the data set is transmitted to the video integration apparatus by the broadcast apparatus separately from the video presentation.

5 4. The system of claim 1 comprising plural data sets identifying plural individual regions in the video presentation and plural alternative regions, one alternative region associated with each individual region, wherein alternative pixel presentation is practiced for each individual region.

10 5. A method for providing virtual alternative display regions in video presentations, comprising steps of:

(a) providing a video presentation to a video integration apparatus;

15 (b) sending a data set to the video integration apparatus, the data set identifying a sequence of video frames in the video presentation, an individual region appearing in each of the frames in the sequence of frames, and a pixel signature comprising an average of red, green, and blue (R,G,B) values over all of the pixels in the individual region, the pixel signature also comprising a specific deviation from the RGB average values;

20 (c) providing an alternative video region conforming in areal extent to the individual region in the video presentation, the alternative video region comprising alternative pixel values for the pixels in the individual region; and

25 (d) as each frame of the video presentation in the sequence of frames is received and processed, testing the pixel values for the individual region in the frame, and for pixel values tested that deviate from the RGB average values beyond the specific deviation, displaying the pixel values provided by the video presentation, and for pixel values tested that fall within the

specific deviation from the average values, displaying the alternative pixels from the stored alternative video region.

6. The method of claim 5 wherein, in step (c), the alternative video region comprises an advertisement.

7. The method of claim 5 wherein, in step (b) the data set is transmitted to the video integration apparatus separately from the video presentation.

8. The method of claim 5 comprising plural data sets identifying plural individual regions in the video presentation and plural alternative regions, one alternative region associated with each individual region, wherein alternative pixel presentation is practiced for each individual region.

9. A video integration system comprising:

apparatus for receiving and integrating a video data stream;

at least one data set identifying a sequence of video frames in the video presentation, an individual region appearing in each of the frames in the sequence of frames, and a pixel signature comprising an average of red, green, and blue (R,G,B) values over all of the pixels in the individual region, the pixel signature also comprising a specific deviation from the RGB average values; and

at least one alternative video region conforming in areal extent to the individual region in the video presentation, the alternative video region comprising alternative pixel values for the pixels in the individual region;

characterized in that the integration apparatus, as each frame of the video presentation is received and processed, tests the pixel values for the individual region in the frame, and for pixel values tested that deviate from

the RGB average values beyond the specific deviation, displays the pixel values provided by the video presentation, and for pixel values tested that fall within the specific deviation from the average values, displays the alternative pixels from the stored alternative video region.

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10. The system of claim 9 wherein the alternative video region comprises an advertisement.

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11. The system of claim 9 wherein the data set is transmitted to the video integration apparatus separately from the video presentation.

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12. The system of claim 9 comprising plural data sets identifying plural individual regions in the video presentation and plural alternative regions, one alternative region associated with each individual region, wherein alternative pixel presentation is practiced for each individual region.

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13. A method for presenting an alternative video region in a sequence of frames in a video presentation, comprising steps of:

(a) receiving a video data stream by a video integration apparatus;

(b) identifying an individual region in a sequence of frames in the video presentation, and a pixel signature comprising an average of red, green, and blue (R,G,B) values over all of the pixels in the individual region, the pixel signature also comprising a specific deviation from the RGB average value;

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(c) identifying at least one alternative video region conforming in areal extent to the individual region in the sequence of frames of the video presentation, the alternative video region comprising alternative pixel values for the pixels in the individual region;

(d) testing the pixel values for the individual region in the sequence of frames;

(e) for pixel values tested that deviate from the RGB average values beyond the specific deviation, displaying the pixel values provided by the video presentation; and

(f) for pixel values tested that fall within the specific deviation from the average values, displaying the alternative pixels from the stored alternative video region.

14. The method of claim 13 wherein, in step (c) the alternative video region comprises an advertisement.

15. The method of claim 13 comprising plural data sets identifying plural individual regions in the video presentation and plural alternative regions, one alternative region associated with each individual region, wherein alternative pixel presentation is practiced for each individual region.

16. A computerized system for editing a video presentation to provide an area for a virtual advertisement, comprising:

input apparatus for selecting a region appearing in a sequence of frames in the video presentation; and

a software routine for analyzing the selected region;

wherein the software routine prepares a pixel signature for the selected region by averaging the RGB values of pixels in the selected region and applying a deviation factor.

17. The system of claim 16 wherein the deviation is computed as the standard deviation for the pixel values in the region.

18. The system of claim 16 wherein the region selected is selected from a region library associated with a source of the video presentation.

5 19. A method for preparing a region in a sequence of frames in a video presentation for use as a region for adding virtual content, comprising steps of:

(a) taking an average of R, G, and B pixel values for pixels included in the region;

10 (b) applying a deviation to the average values to provide a pixel value range for pixels in the region;

(c) creating a data set identifying the region and associating the pixel signature with the region; and

15 (d) providing the data set to an integration system for use in substituting virtual content.